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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter Emmanuel Petros

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EXAMINER

MASHACK, MARK F

ART UNIT

PAPER NUMBER

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MAIL DATE

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12/15/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,701	<b>Applicant(s)</b> PETROS, PETER EMMANUEL	
	<b>Examiner</b> MARK MASHACK	<b>Art Unit</b> 3773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,17-28,30,32,33,35-39,41,42,44,46-48 and 50-55 is/are pending in the application.
- 4a) Of the above claim(s) 1,3-15,35-39,41,42,44,46-48,50 and 51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-28,30,32,33,35 and 52-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is in response to a communication dated 9/2/2010. Claims 1, 3-15, 17-28, 30, 32-33, 35-39, 41-42, 44, 46-48, 50-55 are pending. Claims 1, 3-15, 35-39, 41-42, 44, 46-48, 50-51 have been withdrawn.

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/2/2010 has been entered.

#### ***Response to Arguments***

2. Applicant's arguments filed 9/2/2010 have been fully considered but they are not persuasive. Applicant argues that **Colleran** in view of **Thal** and **Pagedas** does disclose of "a part annular space between a convex arcuate edge of the locking element and an opposed edge of an aperture". Examiner disagrees as further discussed and illustrated below. Applicant argues that "there is not mention of furrowing in **Pagedas** and there is no indication that the suture lock opening of **Pagedas** flexibly cooperates with a furrowed tape". Examiner asserts that the locking mechanism of **Pagedas** is capable of furrowing and cooperating with a tape. Applicant argues that "the suture lock opening of

**Pegedas** would not operate as a one way lock for the tape". However, Applicant provides no evidence or reasoning for why the tape would be able to slide in both direction. Examiner disagrees. The locking mechanism of **Pegedas** is intended to provide a one way lock for "a wider range of suture needles and suture materials" (Col 2, Lines 36-38). Examiner asserts that the locking mechanism would be capable of furrowing and locking a tape.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claim 55** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "substantially cylindrical configuration" is not found in the written specification. The Applicant is relying on Fig 2 for the support of the claim limitation; however the term "substantially cylindrical configuration" provides more coverage than the embodiment depicted in the Figure, so it is considered new matter.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 19-21** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term “the edge” is indefinite.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 17-21, 23-24, 26, 28, 30, 32-33, 52-55** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Colleran et al. (“Colleran” US 2003/0088250)** in view of **Thal (US 5,891,168)** and **Pagedas et al. (“Pagedas” US 6,015,428)**.

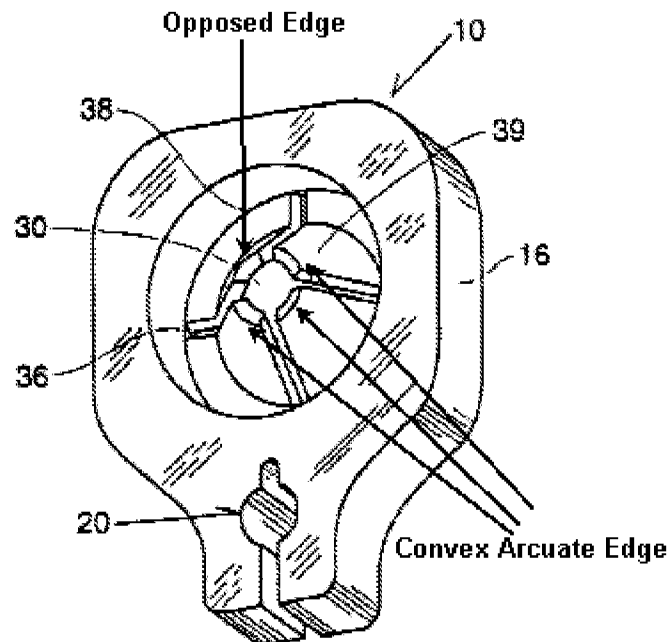
**Colleran** disclose a tissue anchor comprising a base **230** and a head **215, 216, 219**. Head comprises a barbed configuration (FIGs 4) with prongs **219a'** comprising a tapered, pointed, resilient flexible tip (Paragraph 58). Said prongs 219a', b', c', d' are equidistant spacing around the central axis of the head (cross section 4E as shown in

FIG 4D) and divergent away from the end of the head in the direction of the base (FIG 4A). The head comprises an aperture **235** and a locking member **250, 254** is inclined with respect to the base when the suture is present and allows the filamentary element to pass in one direction and impedes it in the opposite direction (FIGs 4 and Paragraph 59-61). The locking member has a face in the one direction and a face in the opposite direction with an edge extending between the two which frictionally engages the suture (FIGs 4A-G and Paragraph 59-61). **Colleran** discloses all of the claimed limitations except for the prongs having a substantially cylindrical configuration tapering to a conical tip. However, **Thal** teaches of a similar anchor comprising substantially cylindrical prongs **16, 18** configuration tapering to a conical tip (FIG 1). It would have been obvious to modify the device of **Colleran** with the prong configuration as taught by **Thal** in order to facilitate the attachment of the anchor to bone mass (Column 3, Lines 4-7 and Column 4, Lines 7-16).

**Colleran** in view of **Thal** disclose all of the claimed limitations including a locking member which is intended to allow the suture to pass in one direction and impedes it in the opposite direction (FIG 4 and Paragraphs 59-61). **Pagedas** teaches a similar device with a plurality of embodiments (FIG 1-4 and 16-17) that are intended to provide a similar one-way locking member. One embodiment (FIG 1-4) depicts a locking element comprises the outer radial edges of the free end of the three of the tongues **36** and an opposed edge (the remaining tongue **36**). The locking element is capable of furrowing woven or knitted tape when positioned within the edges. Given the teachings of **Pagedas**, it would have been obvious to one of ordinary skill in the art at the time of

Art Unit: 3773

the invention to substitute the locking element of **Colleran** for the locking element of **Pagedas**. Doing so would provide an improved means for enabling the passage of the suture through the aperture and prevent the withdrawal.



*Fig. 4*

**Regarding Claim 18**, the locking element includes two faces in each direction (**Pagedas**; Fig 1-4) and one face is considered to comprise an inward recess formed by the curvature of the arcuate edges and can be considered "proximate" to either direction. **Regarding Claim 19**, the edge of the locking element is formed to engage the surface of the tape when the tape is moved in said opposite direction (**Pagedas**; Col 2, Lines 19-23). **Regarding Claim 20**, the convex arcuate edge (as shown in Annotated Fig 4) is defined by two faces (**Pagedas**; Fig 1-4) and is inclined away from the opposed

edge. Alternatively, the "opposed edge" can be considered the top element **31** as shown in Figure 2. **Regarding Claim 21**, slots can be appreciated between the individual tongues of the convex arcuate edge (**Pagedas**; Fig 1-4). **Regarding Claim 23**, the space has a configuration which substantially corresponds to the cross section of the tape. **Regarding Claim 26**, the space is located substantially central across the central longitudinal axis of the anchor. **Regarding Claim 28**, the locking member is inclined with respect to the base (**Pagedas**; Fig 1-4). **Regarding Claim 30, 32-33, Colleran** in view of **Thal** disclose of pointed, prongs resiliently flexible spaced equidistant. **Regarding Claim 52**, the locking element of is flexible. **Regarding Claim 53, Colleran** discloses of a pointed tip. **Regarding Claim 54, Colleran** in view of **Thal** disclose of prongs extending radially backward from the head. **Regarding Claim 55, Colleran** in view of **Thal** disclose of prongs being of a substantially cylindrical configuration.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK MASHACK whose telephone number is (571)270-3861. The examiner can normally be reached on Monday-Thursday 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571) 272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Mashack/  
Examiner, Art Unit 3773

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Primary Examiner, Art Unit 3773